### **DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: MAMMALIAN SWEET TASTE RECEPTORS, the specification of which was filed on 10 August 2001 and which received U.S. Serial Number 09/927,315.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign applications(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Country		Application No.	Da	te of Filing	Priority Claimed Under 35 USC 119		
					Ye	s 🔲 No	
					Ye	s 🔲 No	
hereby claim the b	Application No.	5, United States Code § 119	9(e) of any U	•	isional applicatio	on(s) listed be	low:
			3 July 20				
	60/302,898		3 July 20				
claim the benefit	ınder Title 35 Uni	ted States Code Section 1	20 of any I	Inited States anni-	ication(s) listed	helow and in	scofar
natter feach of the fritte 35, United	claims of this appl States Code, Section	ted States Code, Section 1 ication is not disclosed in ton 112, I acknowledge the red between the filing date	the prior Uni duty to disc	ted States applica close material inf	tion in the mann ormation as defi	er provided b	y the 37, C
natter feach of the fittle 35, United Regulations, Section	claims of this appl States Code, Section	ication is not disclosed in to on 112, I acknowledge the	the prior Uni duty to disc	ted States applica close material inf	tion in the mann ormation as defi	er provided be ned in Title :	y the 37, C
natter feach of the fritle 35, United Regulations, Section pplication:	claims of this appl States Code, Section	ication is not disclosed in ton 112, I acknowledge the red between the filing date	the prior Uni duty to disc	ted States applica close material inf	tion in the mann ormation as defi ne national or PC	er provided be ned in Title :	y the 37, C
natter feach of the fritle 35, United Regulations, Section pplication:	claims of this appl States Code, Section	ication is not disclosed in ton 112, I acknowledge the red between the filing date	the prior Uni duty to disc	ted States applica close material info application and th	tion in the mann ormation as defi ne national or PC	er provided b ned in Title : T internation	y the 37, C nal fil

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) of the Government of the United States of America as represented by the Secretary of the Department of Health and Human Services, Office of Technology Transfer, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Robert Benson, Reg. No. 33,612 Steven M. Ferguson, Reg. No. 38,448 James C. Haight, Reg. No. 25,588 John P. Kim, Reg. No. 38,514 Susan S. Rucker, Reg. No. 35,762 David R. Sadowski, Reg. No. 32,808 Jack Spiegel, Reg. N . 34,477 Send Correspondence to Appointed Associate Attorney or Agent Address:

Direct Telephone Calls and Facsimiles to Appointed Associate Attorney or Agent:

Annette S. Parent
TOWNSEND and TOWNSEND and CREW LLP

Name: Annette S. Parent Reg. No.: 42,058

Two Embarcadero Center, 8th Floor San Francisco, CA 94111-3834 Telephone: 415/576-0200 Fax: 415/576-0300

Full Name	Last Name	First Name	Middle Name or I	Middle Name or Initial J. P.	
f Inventor 1	Ryba	Nicholas	J. P.		
Residence & Citizenship	City Bethesda	State/Foreign Country Maryland	Country of Citizen GB	ship	
Post Office	Post Office Address	City	State/Country	Zip Code	
Address	6405 Crane Terrace	Bethesda	Maryland	20817	
Full Name	Last Name	First Name	Middle Name or I	Middle Name or Initial A.	
f Inventor 2	Hoon	Mark	A.		
Residence & Citizenship	City Kensington			ship	
Post Office Address			Zip Code 20895		

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18 of the United States Code, Section 1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 1	Signature of Inventor 2  May
Nicholas J. P. Ryba  Date	Mark A. Hoon  Date (υ(ζ4(σ)

SF 1281287 v1

PTO/SB/81 (02-01)

Approved for use through 10/31/2002. OMB 0651-0035

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

	Applicati n Number	09/927,315
	Filing Dat	August 10, 2001
POWER OF ATTORNEY OR	First Named Inventor	ZUKER et al.
AUTHORIZATION OF AGENT	Title	MAMMALIAN SWEET TASTE RECEPTORS
	Group Art Unit	1645
	Examiner Name	Unassigned
	Attorney Docket Number	02307E-120110US
I hereby appoint:		

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	•	Name	е		Registration Number		
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as my/our a	attomev(s)	or agent(s) to pro-	secute the application	identifie	d above and to t	ransact all	
business in	the United	States Patent an	d Trademark Office o	onnected	therewith.	andad an	
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Telephone				Fax			
I am the:							
☐ Appli	cant/Invent	or.					
			terest. See 37 CFR				
State	Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).						
SIGNATURE of Applicant or Assignee of Record							
Name	Lin	nda S. Stev	enson				
Signature	Bu	ida & St	evensor.				
Date	Dec	ember 10.	2001				
	NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than on signatur is required, see below*.						
*Total of ONE forms are submitted.							

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any Comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

SF 1280705 v1

Attorney Docket No.: 023u -120110US

Client Ref. No.: UC 2001-510-1

PTO/SB/01A: (10-00) Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION **USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

As the below named inventor(s), I/we declare that:						
This declaration is directed to:						
		The attached application, or				
	$\boxtimes$	Application No. 09/927,315 filed on August 10, 2001				
		as amended on (if applicable);				
I/we believe that I/we for which a patent is		the original and first inventor(s) of the subject matter which is claimed and				
I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;						
I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and						
All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.						
FULL NAME OF INVE	NTOR(S	5)				
Inventor 1	Charle	es St. Zuker Date: 10/31/01 ·				
Signature:	U	Citizen of: United States				
 Inventor 2	Grego	ory A. Nelson , Date: 10/31/01				
Signature:		Citizen of: United States				
 Signature:		Citizen of: United States  Date: 103101				
PU						
Inventor 3	Jayar	eth Chandrashekar Date:  0 31 0				
Inventor 3 Signature:	Jayar	Citizen of: India				

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

SF 1280703 v1

#### **DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: MAMMALIAN SWEET TASTE RECEPTORS, the specification of which was filed on 10 August 2001 and which received U.S. Serial Number 09/927,315.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign applications(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign App	olication(s)				An or a		
Country		Application No.		ate of Filing	Priority Claimed Under 35 USC 119		19
					Yes	No	
		·			Yes	No No	
hereby claim the b	penefit under Title 35,	United States Code § 119(	e) of any	United States prov	isional applicatio	on(s) listed bel	low:
	Application No.		Filing D	Pate			
	60/302,898		3 July 2001				
					•		
natter of each of th of Title 35, United	e claims of this applic States Code, Section	ed States Code, Section 12d cation is not disclosed in the 112, I acknowledge the d d between the filing date o	e prior Un luty to dis	ited States applica sclose material info	tion in the manne ormation as defin	er provided by ned in Title 3	y the first paraged, Code of Fe
		Date of Filing			Status		
Application No.		Danoorraning					
Application No.	<del> </del>	Dute of Fining		☐ Patented	Pending	Abanc	loned
Application No.		Date of Fining		Patented Patented			

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) of the Government of the United States of America as represented by the Secretary of the Department of Health and Human Services, Office of Technology Transfer, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Robert Benson, Reg. No. 33,612 Steven M. Ferguson, Reg. No. 38,448 James C. Haight, Reg. No. 25,588 John P. Kim, Reg. No. 38,514 Susan S. Rucker, Reg. No. 35,762 David R. Sadowski, Reg. No. 32,808 Jack Spiegel, Reg. No. 34,477 Send Correspondence to Appointed Associate Attorney or Agent Address:

Direct Telephone Calls and Facsimiles to Appointed Associate Attorney or Agent:

Annette S. Parent

TOWNSEND and TOWNSEND and CREW LLP

Two Embarcadero Center, 8th Floor San Francisco, CA 94111-3834 Name: Annette S. Parent Reg. No.: 42,058

**Telephone:** 415/576-0200 **Fax:** 415/576-0300

Full Name f Inventor 1	Last Name Ryba	First Name Nicholas	Middle Name or I	Initial
Residence & Citizenship	City Bethesda	State/Foreign Country Maryland	Country of Citizen	ship
Post Office Address	Post Office Address 6405 Crane Terrace	City Bethesda	State/Country Maryland	Zip Code 20817
Full Name of Inventor 2	Last Name Hoon	Mark A.  State/Foreign Country Country of Citizenship		[nitial
Residence & Citizenship	City Kensington			ship
Post Office Address			•	Zip Code 20895

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18 of the United States Code, Section 1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 1	Signature of Inventor 2
Nicholus lyba	
Nicholas J. P. Ryba	Mark A. Hoon
Date 10/24/01	Date

SF 1281287 v1

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

RYBA et al.

Application No.: 09/927,315

Filed: August 10, 2001

For: MAMMALIAN SWEET TASTE

RECEPTORS

Examiner: Michael Brannock

Group Art Unit: 1646

APPOINTMENT OF ASSOCIATE
ATTORNEYS AND AGENTS BY
PRINCIPAL ATTORNEY OR AGENT

<u>UNDER 37 CFR §1.34(b) AND</u>

MPEP 402.02

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

Under 37 CFR §1.34(b) and MPEP 402.02, the undersigned principal attorney or agent of record hereby appoints the following representatives from the law firm of TOWNSEND and TOWNSEND and CREW LLP, Two Embarcadero Center, 8th Floor, San Francisco, California 94111-3834, telephone: (415) 576-0200, as associate attorneys and/or patent agents in this application with full powers to prosecute this case and to transact all business in the Patent and Trademark Office connected therewith:

Scott L. Ausenhus, Reg. No. 42,271 Kevin L. Bastian, Reg. No. 34,774 Nathan Cassell, Reg. No. 42,396 Rosemarie L. Celli, Reg. No. 42,397 Guy Chambers, Reg. No. 30,617 M. Henry Heines, Reg. No. 28,219 Matthew E. Hinsch, Reg. No. 47,651 Laurence J. Hyman, Reg. No. 35,551 William M. Hynes, Reg. No. 24,168 William B. Kezer, Reg. No. 37,369 Joe Liebeschuetz, Reg. No. 37,505

Dated: 8 Aug 2012

Jean Lockyer, Reg. No. 44,879
Frank J. Mycroft, Reg. No. 46,946
Annette S. Parent, Reg. No. 42,058
Steven W. Parmelee, Reg. No. 31,990
Brian W. Poor, Reg. No. 32,928
Mark Sandbaken, Reg. No. 39,354
Peter Seperack, Reg. No. 47,932
Joseph R. Snyder, Reg. No. 39,381
Eugenia Garrett-Wackowski, Reg. No. 37,330
Kenneth A. Weber, Reg. No. 31,667

Respectfully submitted,

United States Department of Health and

Human Services

By\_

,Reg. No. ノ y Transfer

Office of Technology Transfer National Institutes of Health

6011 Executive Boulevard, Suite 325

Rockville, Maryland 20852 Telephone: (301) 496-7056

SF 1286074 v1



ASP 62307E-120110US

FEBRUARY 08, 2002

PTAS

TOWNSEND AND TOWNSEND AND CREW LLP ANNETTE S. PARENT, ESQ.
TWO EMBARCADERO CENTER, 8TH FLOOR SAN FRANCISCO, CA 94111-3834

Under Secretary of Commerce For Intellectual Property and Director of the United States Patent and Trademark Office Washington, DC 20231 www.uspto.gov



UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/20/2001

REEL/FRAME: 012373/0233

NUMBER OF PAGES: 8

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ZUKER, CHARLES S.

DOC DATE: 10/31/2001

ASSIGNOR:

NELSON, GREGORY A.

DOC DATE: 10/31/2001

ASSIGNOR:

CHANDRASHEKAR, JAYARAM

DOC DATE: 10/31/2001

**ASSIGNOR:** 

ZHANG, YIFENG

DOC DATE: 11/07/2001

ASSIGNOR:

RYBA, NICHOLAS J.P.

DOC DATE: 10/24/2001

ASSIGNOR:

HOON, MARK A.

DOC DATE: 10/24/2001

## 012373/0233 PAGE 2

### ASSIGNEE:

REGENTS OF THE UNIVERSITY OF CALIFORNIA, THE 1111 FRANKLIN STREET, 12TH FLOOR OAKLAND, CALIFORNIA 94607

### ASSIGNEE:

GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, THE NATIONAL INSTITUTES OF HEALTH-OTT 6011 EXECUTIVE BLVD., SUITE 325 ROCKVILLE, MARYLAND 20852

SERIAL NUMBER: 09927315

PATENT NUMBER:

FILING DATE: 08/10/2001

ISSUE DATE:

STEVEN POST, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS 12-20-2001

	Form PTO-1595 (Rev. 03-01) OMB No. 0651-0027 (exp. 5/31/2002)	heet U.S. Department of Commerce U.S. Patent and Trademark Office
	Tab settings ⇒ ⇒ ⇒ ▼ 10192232	4 ▼ ▼ ▼
	To the Honorable Commissio are and Trademarks.  1. Name of conveying party(ies):	Please record the attached original documents or copy thereof  2. Name and address of receiving party(ies)
P	Charles S. Zuker; Gregory A. Nelson; Jayaram Chandrashekar; Yifeng Zhang; Nicholas J.P. Ryba; and Mark A. Hoon	Name: _The Regents of the University of California
(I)	,	Street Address: <u>1111 Franklin Street, 12<sup>th</sup> Floor</u>
,	Additional name(s) of conveying parties attached?   Yes   No.	City: Oakland State: California ZIP: 94607
6	3. Nature of conveyance: / 2 - 2 0 - 6 / ⊠ Assignment □ Merger	,
	☐ Security Agreement ☐ Change of Name	Name: <u>The Government of the United States of America</u> as represented by the Secretary of the Department of Health and Human Services
1	Other:	Internal Address: National Institutes of Health - OTT
}		
١	Execution Date: Oct. 31, 2001; Oct. 31, 2001; Oct. 31, 2001;	Street Address: 6011 Executive Blvd., Suite 325
	Nov. 7, 2001; Oct. 24, 2001; and Oct. 24, 2001	City: Rockville State: Maryland ZIP: 20852
		Additional names and addresses attached? ☐ Yes ☒ No
	4. Application number(s) or patent number(s).	
۱	If this document is being filed together with a new application, th	e execution date of the application is: N/A
	A. Patent Application No(s): 09/927,315	B. Patent No(s):
1	, , , , , , , , , , , , , , , , , , ,	1 3
	Additional numbers atta	l ached? ☐ Yes ☒ No
	5. Name and address of party to whom correspondence	6. Total number of applications and patents involved ONE
	concerning document should be mailed:	
	Name: Annette S. Parent, Esq. TOWNSEND AND TOWNSEND AND CREW LLP	7. Total fee (37 CFR 3.41):\$40.00
	Two Embarcadero Center, 8 <sup>th</sup> Floor	☐ Enclosed
	San Francisco, California 94111-3834 (415) 576-0200	
12/	21/2001 GTON11	8. Deposit account number: 20-1430
01	FC:581 40.00 CH	(Attach duplicate copy of this page if paying by deposit account)
	DO NOT USE	THIS SPACE
	9. Statement and signature.	
	To the best of my knowledge and belief, the foregoing is true a document.	and correct and any attached copy is a true of copy of the original
	$\sim$ $\sim$	
	Annette S. Parent	December 19, 2001
	Name of Person Signing Atty. Reg. No. 42,058	Signature Date
		over sheet, attachments and document TWO

Attorney Docket No.: 02307E-120110US

Client Ref. No.: UC 2001-510-1

#### ASSIGNMENT OF PATENT APPLICATION

**JOINT** 

WHEREAS, Charles S. Zuker of 4778 Thurston Place, San Diego, CA 92130; Gregory A. Nelson of 4852 Cape May, San Diego, CA 92107; Jayaram Chandrashekar of 7536 Charmant Drive, #1127, San Diego, CA 92122; Yifeng Zhang of 4083-D Miramar Street, La Jolla, CA 92037; hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:

MAMMALIAN SWEET TASTE RECEPTORS

Date(s) of execution of Declaration:

Filing Date:

August 10, 2001

Application No.:

09/927,315; and

WHEREAS, The Regent of the University of California, a university of the state of California, located at Office of Technology Transfer, 1111 Franklin Street, 12th Floor, Oakland, CA, 94607-5200, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

Joint Assignment Attorney Docket No.: 02307E-120110US

Page 2

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 10(31)01	Charles S. Zuker
SIGNATURE WITNESSED BY:	f in al
(1) Date: 10 3   6	form / K (hu
' 1,	Signature of Witness 1
(2) Date: 10 31 61	Vayant
(-)	Signature of Witness 2
Dated:[] (31/01	Um al
	Gregory A. Nelson
SIGNATURE WITNESSED BY:  (1) Date: 10 3 1 01	Jayon
(2) Date: 10 3 1 01	Signature of Witness 1
	Signature of Witness 2

Joint Assignment Attorney Docket No.: 02307E-120110US Page 3

Dated: 10   31   01	Jayaram Chandrashekar
SIGNATURE WITNESSED BY:  (1) Date: $\omega/3f/01$ (2) Date: $10/31/61$	Signature of Witness 1  Chuman  Signature of Witness 2
Dated: 11/7/01	Yifeng Zhang
SIGNATURE WITNESSED BY:	man Marthe
(1) Date: $\frac{1}{7} \frac{7}{61}$	Signature of Witness 1  Signature of Witness 2

SF 1280704 v1

# **ASSIGNMENT**

WHEREAS, We, Nicholas J. P. Ryba of 6405 Crane Terrace, Bethesda, Maryland, 20817, a citizen of Great Britain; Mark A. Hoon of 4218 Warner Street, Kensington, Maryland, 20895, a citizen of Great Britain; all inventors being employees of the Department of Health and Human Services at the time the invention was made, have invented: MAMMALIAN SWEET TASTE RECEPTORS, for which an application to the Assistant Commissioner for Patents for grant of Letters Patents of the United States of America has been executed by the undersigned

on (date(s) Declaration signed):

is identified as U.S. Patent Application: Serial No. 09/927,315

Filed; and

WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the United States of America under Paragraph 1(a) of Executive Order 10096, to the entire right, title, and interest herein, both domestic and foreign; and

WHEREAS, the Government of the United States of America is desirous of acquiring all domestic and foreign right, title, and interest in the aforesaid invention described in the aforesaid application for Letters Patent of the United States of America; and

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, we the undersigned, have sold, assigned, and transferred and by these presents do sell, assign, and transfer unto The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services (hereinafter THE GOVERNMENT), and his successors, the full and exclusive right, title, and interest throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file the invention described in the aforesaid application for Letters Patent of the United States of America, and all Letters Patents and Registrations which may be granted on the same in the United States of America and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

AND, we hereby authorize and request the Assistant Commissioner for Patents to issue said Letters Patent to THE GOVERNMENT as assignee of the entire right, title, and interest in and to

the same throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file, for the sole use for the full term or terms for which said Letters Patent and Registrations may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof which may be granted as fully and entirely as the same would have been held by us, had this assignment not been made;

AND, we hereby warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied with respect to the aforesaid application for Letters Patent which will impair, diminish, limit, or abridge the interest herein conveyed at the time of the execution of this instrument by us;

AND, we hereby agree to execute any and all applications for Letters Patent in the United States of America and foreign countries, and to furnish and deliver to the Secretary, Department of Health and Human Services, upon request, all data and documents, and to execute any papers which may be necessary for the prosecution of any application or applications of Letters Patent or for THE GOVERNMENT to exercise its rights granted hereunder, including communicating to THE GOVERNMENT, its representatives or agents, any facts relating to said invention, including evidence for interference purposes, or for other proceedings, whenever requested, to testify in any interference or other proceedings, whenever requested, and to execute and deliver on request all lawful papers required to make any of the foregoing provisions effective, and likewise make these provisions binding upon our heirs, legal representatives, administrators and assigns, and we shall assist THE GOVERNMENT in every way as may be requested in protecting said invention, provided that any expense of extending such assistance shall be paid by THE GOVERNMENT.

The undersigned hereby grants THE GOVERNMENT or the law firm of Townsend and Townsend and Crew LLP, the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN TESTIMONY WHEREOF, Assignor	rs have signed their names on the dates indicated.
Nicholas J. P. Ryba	W/24/01 (date)
STATE OF MARYLAND)  COUNTY OF MONTGOMERS  Prince (Georges  UNITED STATES OF AMERICA	\ ·
to me on the basis of satisfactory evidence) to I the within instrument and acknowledged to me	(here insert name and title of proved to the person(s) whose name(s) is/are subscribed to that he/she/they executed the same in his/her/their r signature(s) on the instrument the person(s), or the execute the instrument.
WITNESS my hand and official seal.  Si	ignature ##
(Seal)	HILDA K. CHAMORRO NOTARY PUBLIC STATE OF MARYLAND My Commission Expires July 18, 2004

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Mark A. Hoon	(date)
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UNITED STATES OF AMERICA	
to me on the basis of satisfactory evidence) the within instrument and acknowledged to	A. How, personally known to me (or proved to be the person(s) whose name(s) is/are subscribed to me that he/she/they executed the same in his/her/their neir signature(s) on the instrument the person(s), or the
WITNESS my hand and official seal.	Signature July
(Seal)	
	HILDA K. CHAMORRO NOTARY PUBLIC STATE OF MARYLAND My Commission Expires July 18, 2004

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Attorney Docket No. 02307E-120110US

STATEMENT UNDER 37 CFR 3.73(b)		
Applicant/Patent Owner: Charles S. Zuker, Gregory A. Nelson, Jayaram Chandrashekar, and Yifeng Zhang		
Application No /Patant No : 00/027 215 Filed/leggs Date: August 10, 2001		
Application No./Patent No.: 09/927,315 Filed/Issue Date: August 10, 2001  Entitled: MAMMALIAN SWEET TASTE RECEPTORS		
The Regents of the University of California , a University		
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc		
states that it is:		
1. X the assignee of the entire right, title, and interest; or		
an assignee of an undivided part interest		
in the patent application/patent identified above by virtue of either:		
A.   An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.		
OR .		
B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:		
1. From: To : The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.		
2. From: To :		
The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.		
3. From: To :		
The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.		
Reel, Frame, or for which a copy thereor is attached.		
Additional documents in the chain of title are listed on a supplemental sheet.		
Copies of assignments or other documents in the chain of title are attached.  [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8]		
The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the assignee.		
December 10, 2001  Date  Signature  December 10, 2001  Signature		
Linda S. Stevenson		
Typed or printed name Manager, Patent Prosecution		
Tanager, racent research		

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Attorney Docket No.: 02307E-120110US

Client Ref. No.: UC 2001-510-1

#### ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Charles S. Zuker of 4778 Thurston Place, San Diego, CA 92130; Gregory A. Nelson of 4852 Cape May, San Diego, CA 92107; Jayaram Chandrashekar of 7536 Charmant Drive, #1127, San Diego, CA 92122; Yifeng Zhang of 4083-D Miramar Street, La Jolla, CA 92037; hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:

MAMMALIAN SWEET TASTE RECEPTORS

Date(s) of execution of Declaration:

Filing Date:

August 10, 2001

Application No.:

09/927,315; and

WHEREAS, The Regent of the University of California, a university of the state of California, located at Office of Technology Transfer, 1111 Franklin Street, 12th Floor, Oakland, CA, 94607-5200, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

NOT FOR RECORDATION

Joint Assignment Attorney Docket No.: 02307E-120110US Page 2

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 10 31 01	Charles S. Zuker
SIGNATURE WITNESSED BY:	f in al
(1) Date: 10 31 61	foren / K (him
(2) Date: 10 31 61	Signature of Witness 1
'. <b>'</b>	Signature of Witness 2
Dated: [0 (3 i / 0)	In al
SIGNATURE WITNESSED BY:	Gregory A. Nelson
(1) Date: 10 3 1 0 i	Jayon
(2) Date: 10/31/07	Signature of Witness 1
1	Signature of Witness 2

Joint Assignment
Attorney Docket No.: 02307E-120110US
Page 3

Dated: 10 | > 1 | 0 |

SIGNATURE WITNESSED BY:

(1) Date:  $\omega/31/\omega1$ Signature of Witness 1

Signature of Witness 2

Dated: 11/7/01

Yifeng Zhang

Jayaram Chandrashekar

SIGNATURE WITNESSED BY:

(1) Date: 1/7/01

(2) Date:  $il/7/c_1$ 

Signature of Witness 1

Signature of Witness 2

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